In the Claims:

This listing of claims replaces all prior versions.

1. (*Currently Amended*) A method of manufacturing nanowires, comprising the steps of

providing a patterned etching mask at a surface of a semiconductor substrate, and

etching the semiconductor substrate so as to form nanowires in a direction substantially perpendicular to the surface of the semiconductor substrate,

characterized in that

the semiconductor substrate comprises a first layer of a first material, ~~and~~ a second layer of a second material, ~~which layers adjoin one another~~ and a third layer of the first material, the second layer sandwiched between the first and third layers; and

etching takes place through the first, ~~and the~~ second and third layers for forming the nanowires such that the nanowires comprise a first region of the first material, ~~and~~ a second region of the second material and a third region of the first material.

2. (*Original*) A method as claimed in claim 1, characterized in that the first and the second material comprise the same semiconductor but different dopings.

3. (*Original*) A method as claimed in claim 1, characterized in that the second layer is formed by epitaxial growth of the second material on the first layer.

4. (*Original*) A method as claimed in claim 3, characterized in that the first material comprises Si, and the second material is chosen from the group comprising SiC, SiGe, and SiGeC.

5. (*Currently Amended*) A method as claimed in claim 1, characterized in that

~~a third layer of a third material is present in the semiconductor substrate,~~

the second layer ~~lies sandwiched between the first layer and the third layer and~~ has a thickness of at most 100 nm, ~~and~~

~~etching takes place through the first, the second, and the third layer for forming the nanowires, such that the nanowires comprise the first region, the second region, and a third region composed of the third material~~.

6. (*Canceled*)

7. (*Previously Presented*) A method as claimed in claim 1, wherein the nanowires are removed from the substrate after the etching of the substrate.

8. (*Canceled*).

9. (*Canceled*).